service manual

Instant Burger®

MODELS A975 & A980

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DESCRIPTION OF MODELS

This service manual is written for models A975 and A980 series. The difference in the two models is that the A980 does not have slide adjustment brackets as it was designed for situations where adjustments are not needed.

There is an older model A975 and a newer model A975. The older model A975 has a "Rare-Well Done" adjustment control (See figure 1.) On the newer model A975, this control was removed (See figure 2.) The degree of doneness is now factory set at "Well Done". This is a requirement of most health departments.

Both the older A975 and newer models have slide adjustment brackets for adjusting the thickness of the hamburger. On the A980, the thickness of the hamburger is factory set for a one-quarter pound hamburger and is not adjustable. The A980 has been discontinued since there is so little difference between the A980 and the newer model A975.

How do you tell the difference between the models?

1. The older model A975 is readily identifiable by the "Rare-Well Done" knob on the front control panel. If you lift the cover, you will also see adjustment slide brackets for adjusting the thickness of the hamburger. (See figure 1.)
2. Newer models of the A975 have the "Rare-Well Done" control removed from the printed circuit board. (See figure 2.) Hence it will not appear. However, if you open the cover, you will still see the adjustment slide brackets for adjusting the thickness of the hamburger.
3. The A980 may be identified easily because it has neither the "Rare-Well Done" control nor the adjustment slide brackets.

IMPORTANT:

This service manual is written such that the "Rare-Well Done" control is still on the machine. Anytime this service manual refers to the "Rare-Well Done" control or knob, it will be italicized. If you are servicing an A980 or newer model A975 without the "Rare-Well Done" potentiometer, simply skip the italicized portion and go to the next paragraph or un-italicized portion of the service instructions.

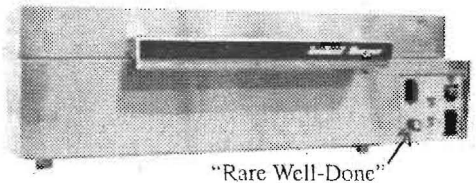


Figure 1

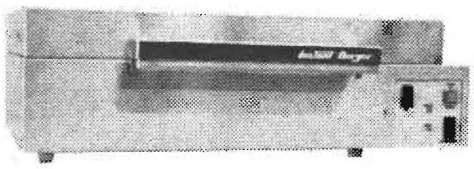


Figure 2

DESCRIPTION OF OPERATION

The Instant Burger represents the latest in modern cooking technology. It uses a new scientific method of direct energy transfer to cook the meat. Rather than using electricity to heat up an element, to heat up a griddle, to heat up a hamburger, the Instant Burger passes the energy directly through the hamburger and causes it to heat itself. It does this economically, automatically, and in a fraction of the time necessary to cook hamburgers by ordinary methods.

In operation, the hamburgers, either in a ball or preformed patties, are placed on the bottom plates. The cover is closed. *The operator presets the "Degree of Doneness" dial between "rare" and "well."* On the A980 and newer model A975, this control has been removed and the control board preset at "Well Done". A sophisticated electronic brain then takes over and monitors the energy to the hamburgers and automatically stops when done. The result is a less fatty and a delicious tasting product. This is especially true since no oil or grease is used to cook the hamburgers. The unit can cook practically any type of ground or tenderized beef. It can also cook small boneless steaks such as rib eyes, eye of round, etc. It can also be used to cook, sausage patties and other types of ground meat. It will also re-heat whole precooked chicken breast and hot dogs.

CARE & CLEANING OF INSTANT BURGER

See Figure 3

Proper cleaning is essential to the maintenance of your INSTANT BURGER. The entire machine should be wiped clean at the end of each day's service. In addition the top and bottom plates, and plastic drip pan should be cleaned any time the Instant Burger is to be out of service for more than one hour. These parts may be removed and immersed in soapy water for cleaning. See "Operations and Merchandising manual" for proper procedure.

Top and bottom plates should be scrubbed clean with a "Scotch-Brite" or similar pad. All other parts may be cleaned using soap and water and a nonabrasive pad.

Special care should be taken to make sure no grease or water enters the control housing.

The model comes equipped for use with a 115V, single phase, 30 amp individual circuit, and must be grounded. All parts which come in contact with meat should be cleaned and disinfected according to the "Operations and Merchandising Manual".

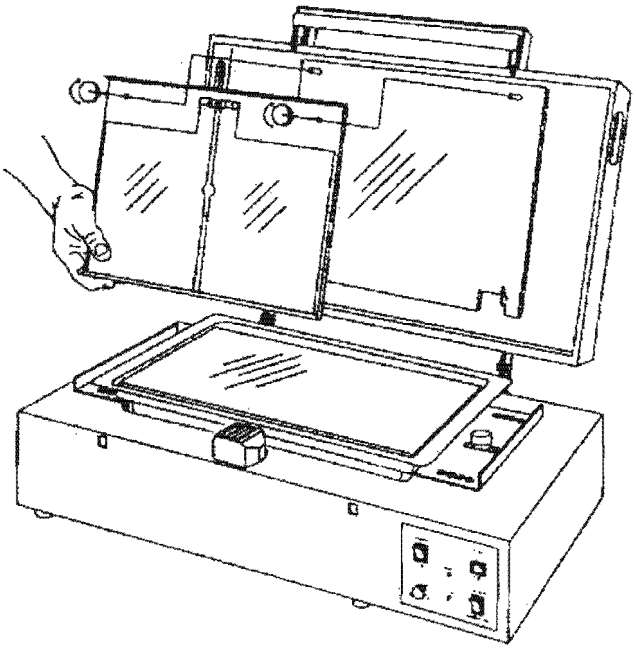
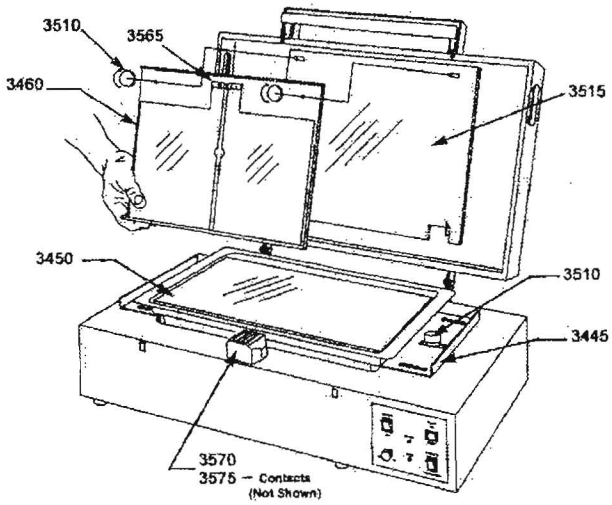


Figure 3

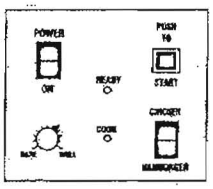
HAMBURGER COOKER

PARTS FOR NEW A975 & A980 INSTANT BURGER

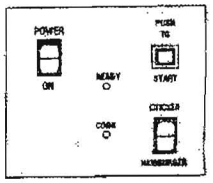
PART NO.	DESCRIPTION	NO. REQ.	UNIT
3105	TRIAC	2	EA.
3159	TERMINAL BLOCK	1	EA.
3445	ADJUSTMENT SLIDE BRACKET (A975 ONLY)	2	EA.
3450	BOTTOM PLATE A950, A975, A980	1	EA.
3460	TOP PLATE A950, A975, A980	1	EA.
3510	KNOBS, A950, A975, A980	4	EA.
3515	BACKING SHEET	1	EA.
3565	CONTACT BLADE	2	EA.
3570	POWER CONNECTOR BLOCK ASSEMBLY	1	EA.
3575	CONNECTOR BLOCK CONTACTS, A975, A980	2	EA.
3630	CORD TO CONNECTOR BLOCK AND TO TERMINAL BLOCK	1	EA.
3636	WIRE THRU COIL	1	EA.
3640	JUMPER WIRES FOR TRIACS	3	EA.
3700	CIRCUIT BOARD, A975, A980 (Both models use the same board. Neither will have "Rare Well Done" Control on it!)	1	EA.
3720	CONTROL BOX, A975, A980	1	EA.

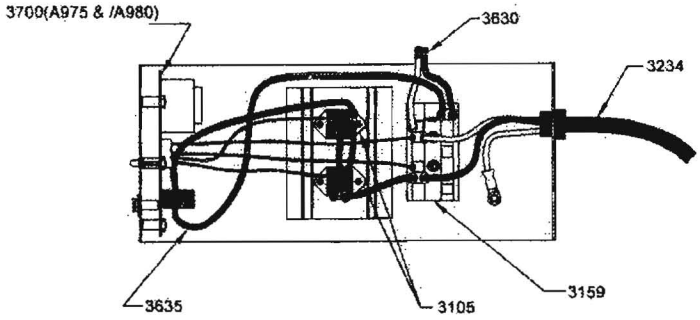


Old Model

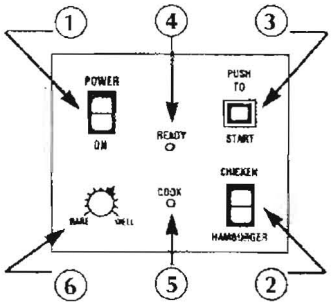


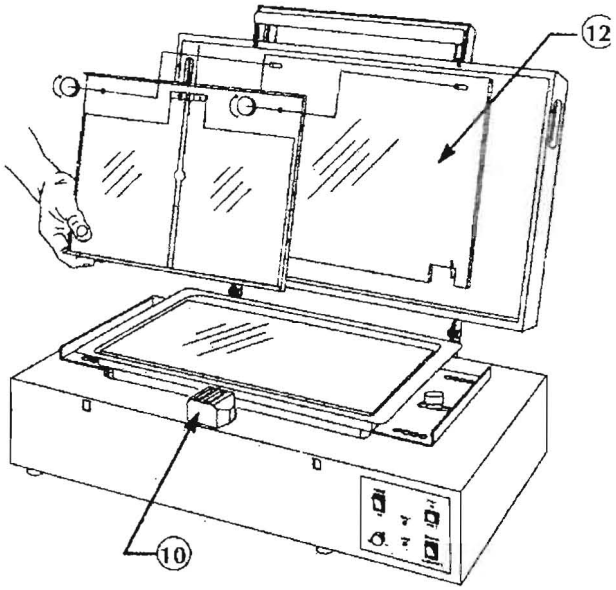
New Model

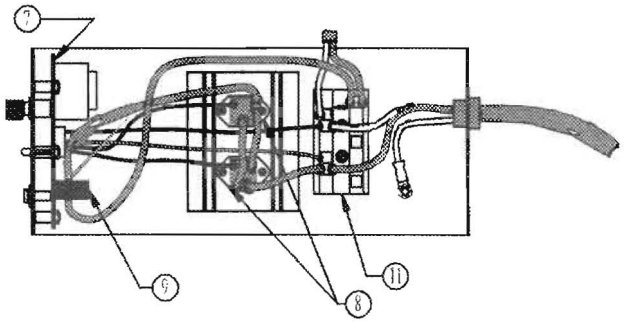




DESCRIPTION OF PARTS







1. **POWER SWITCH**
   Applies power to Printed Circuit Board.

2. **HAMBURGER - CHICKEN SWITCH**
   Select hamburger or chicken mode of cooking.

3. **START SWITCH**
   Starts cooking cycle when pressed.

4. **GREEN LIGHT**
   Indicates machine is on. When sequenced from green to amber and then back to green, it indicates that power has been applied (amber on, green off) and then removed (amber off, green on). In that sequence, it indicates that the meat is done.

5. **AMBER LIGHT**
   Indicates when circuit board tells Triacs to apply power to power connector block and therefore indicates meat is cooking.

6. ***DONENESS CONTROL***
   Used to set degree of doneness from "Rare" to "Well Done". This control will not appear on the A980 or later model A975.

7. **PRINTED CIRCUIT BOARD**
   PART NO. 3700 (A975 & A980)
   Controls cooking cycle. Beeper signals end of cycle.

8. **TRIACS**
   PART NO. 3105
   Applies power to power connector block for cooking when signaled by circuit board.

9. **CURRENT DETECTION TRANSFORMER (MOUNTED ON PC BOARD)**
   Used to monitor current flow during cooking cycle and feed a reflection voltage to the printed circuit board.

10. **POWER CONNECTOR BLOCK ASSEMBLY**
    PART NO. 3570
    Applies voltage to (Top Plates) meat when lid is closed.

11. **TERMINAL BLOCK**
    PART NO. 3159
    Provides junction for connecting wires.

12. **PLASTIC BACKING SHEET**
    PART NO. 3515
    Provides insulation protection between plates and metal cover. Caution: Do not operate unit without this part in place.

HOW THE PRINTED CIRCUIT BOARDS WORKS

It is important that the service person understands the operation of the printed circuit board and how it senses the degree of doneness. As we have said earlier, the Instant Burger uses the scientific method of direct energy transfer to cook the meat. This means that the current goes directly through the meat and the resistance of the meat causes the meat only to heat up. There is a unique curve of the current over time which permits the printed circuit board to detect the degree of doneness. The current starts at about zero because of the high resistance of the meat. As the meat heats up the resistance drops gradually and the current increases. The current increases to a peak as the meat continues to cook, and then the resistance suddenly reverses and become high. Thus the current will drop rather sharply to almost zero amps. The peak current can be as high as 31 to 35 amps. However, this will not trip a 30 amp circuit because it's only there for a few seconds.

Basically, the printed circuit board is an "On-Off" switch. The printed circuit board has two unique circuits on it. One for hamburger and one for chicken. The two meats have difference cooking characteristics. There is a current transformer through which one of the wires pass from the Triac to the terminal block. This wire carries the current which goes through the two hamburgers or chicken breast which are in series with each other. Thus a reflection of the current through the hamburger meat is presented to the board through the current transformer.

While in the Hamburger mode, the hamburger circuit detects an increasing current, peak current and decreasing current. As long as the current is increasing, the circuit will stay on. As soon as the current reaches the peak and starts to decline, the printed circuit board stops the flow of electricity thus stopping the cooking action at the peak of doneness. *This degree of doneness for hamburgers can be varied from "rare" to "well done". It is important to know that "rare" does not mean burnt on the outside and pink in the middle. Since the current flows evenly throughout the hamburger, "rare" will mean pink all the way through. By the same token, "well done" means the same degree of doneness all the way through the meat.*

The chicken circuit works just slightly different. The chicken current also detects the current through the chicken breast. It then remembers the peak and then stops the cooking action at a preset value below that peak.

There are some generalizations that may be stated about the operation of the Instant Burger in the cooking process.

1. The thinner the hamburger and the greater the area of a cooking surface, the greater the flow of electricity through the hamburger. Hence, you need the 30 amp breaker if you're going to be cooking thin hamburgers. However at the thinnest setting (1/4") thickness), the largest hamburger cooked should be a 2.3 ounce burger. Do not try to cook anything larger than 2.3 ounce hamburgers at this setting. If you do, you risk breaking the hinges trying to squash the hamburger down to this thickness. The unit will also draw too much current and trip the breaker.

2. Since each hamburger receives the same amount of current, they must be the same size (portion controlled with the scoop) in order to cook evenly.

3. The plates must be parallel to cook the hamburgers evenly even if they are the same weight. For example: If the slide adjustment brackets are on different settings on each side, one side will form a thicker hamburger than the other. The thicker hamburger will cook quicker than the thinner hamburger and control the circuit to stop the cooking action. The thicker hamburger will appear to be done and the thinner hamburger, which was not sufficiently cooked, will be warm but may look raw.

With a little understanding on how the unit works, and a little common sense, the Instant Burger is simple to repair.

QUICK CHECK FOR FUNCTION OF CONTROLS

The following is a method of performing a quick check on the Instant Burger to see if it is functioning correctly. It mainly consists of visual checks and requires no special tools except a voltmeter. Before performing this test the top needs to be open and the voltmeter prongs plugged into each of the power connector block receptacles.

1. Turn "Rare-Well Done" knob to "Rare" position.

2. Depress "Start" switch.

3. Amber light should come on and stay on for approximately four seconds. At the same time voltmeter should read line voltage (115 volts). After approximately four seconds amber light should go off and green light come on and the beeper will sound. The voltmeter should drop to approximately zero volts.

4. Turn "Rare-Well Done" knob to well done position.

5. Press "Start" button and amber light should come on and stay on past ten seconds. Voltmeter should read line voltage.

6. *Turn "Rare-Well Done" knob towards the "Rare" position and light should switch from amber to green, the beeper sounds and at the same time line voltage should drop to approximately zero volts on voltmeter. This should occur at around the 12 o'clock position of the "Rare-Well Done" knob.*

7. Turn power switch off, then turn back on. Green "ready" light should be restored and voltmeter should read zero volts at power block. If unit performs these tests satisfactorily, then unit is ready to operate. If the unit's power connector block prongs will mate properly with the unit should operate correctly. If not, align prongs.

LOAD TEST

The "Load Test" is a better test than the "Quick Check" as it provides a definite test as to whether the board and the Triacs are working.

The equipment needed is a hair blow dryer of about 1800 watts. This will put a load on the machine of about 16 amps, which is just as little less than that when cooking a 3.2 ounce hamburger. The hair dryer must have a switch with "High," "Medium," "Low" and "Off", in that sequence. There are two tests.

First you need to adapt the plug-in of the hair dryer such that it will mate with the power connector block of the Instant Burger. This may be done by attaching two #12 solid wires (the kind used in house wiring) on each end as follows.

Strip one end on each wire back ¾ of an inch. Strip the other end by ¼ inch. Place yellow slip-on connectors on ¼ inch end of wire and then crimp. Place yellow slip-on connectors on the blade of the dryer plug. You may have to grind down the blades for the yellow connectors to fit.

To run the first test: This test allows you to test the hamburger circuit.

1. Place the ¾ inch bare end into the power connector block of the Instant Burger. (Omit steps 3 & 4, if the unit does not have a *"Rare Well-Done"* Control.)
2. Place the switch on the hair dryer to "High."

3. Place the "Rare Well-Done" Knob in the "Rare" position. Press the "Start" button. The hair dryer should start running. It should stay on approximately 5 seconds and then automatically cutoff by itself.

4. *Turn the "Rare Well-Done" Knob to the full "Well-Done" position.*

5. Press the "Start" button, the hair dryer should come on and stay on for at least 10 seconds. (You should count to 10 because, if you attempt to turn it off prematurely during the time, the 5-second timer is still energized and it will not cut off.)

6. After counting to 10, slide the switch on the hair dryer to "Medium." The amber light on the control board should go off and the hair dryer should stop running immediately.

If it does, the board is functioning properly on "Hamburger" and the Triacs are functioning properly.

If the dryer comes on immediately without pressing the start button and the green light is in the ready position, the Triacs are bad. Go to "Triac Test" find and replace defective Triac(s). If the dryer will not come on when the "Start" button is pushed, the board is most likely defective. Replace it.
To run the Second Test: This test allows you to test the chicken circuit.

1. Switch the hair dryer to "High."
2. Switch the "Hamburger/Chicken" switch to "Chicken."
3. Press the start button. The hair dryer should run.
4. Time for approximately 10 seconds and then slide the switch to "Medium". There should be a slight delay in time that you switch the hair dryer to "Medium" and the time that the amber light goes out and the hair dryer will stop.

If it occurs, the control board is working fine. The Triacs are working fine.

You may also adapt the hair dryer to check the control box by itself. This may be done by attaching two #12 solid wires on each end as follows: Strip both ends on wire back by ¼ inch. Place yellow slip on connectors on every end (4) of the wires and crimp. Place yellow slip on connectors on the blade of the dryer plug. Place the other yellow connectors on the two terminals where the cord to the connector block would normally connect to the terminal block. See figure 10 and part #3630.

SETTING THE BOARD

Sometimes the control board will need setting in the field. One symptom of this is when the control board stops the cooking and the hamburger is not quite done. The equipment needed is a voltmeter, which will measure DC volts as low as 0.2 volts or 200 millivolts.

There are two test points on the control board. There is no need to remove to control board from the control box to set it. With the control box facing you and looking over the back of the control board, the first test point is a "ground" on the board. Use the board ground only. It is located in the extreme upper left hand corner of the board and will say "GND". The second test point is down close to a blue or brown rectangular potentiometer with a small adjustment screw on it. The test point will be located just above this rectangle potentiometer and two resistors. It is labeled "TEST".

Plug in control box and turn on power. Use extreme caution for the potential for being shocked is present.

To reset the board, place your black lead on the "GND" test point and red lead on the "TEST" point. Take a small screwdriver and adjust the adjustment screw on the rectangle potentiometer until the meter reads +0.290 ± .005 volts DC *with the "Rare-Well Done" Knob in the "Well-Done" position.* If there is no "Rare-Well Done" Knob, the unit will be in the "Well-Done" position. Set the potentiometer at +0.290 ± .005 volts DC. Do not try to set the board above this voltage in order to make the board stay on longer. It will cause your hamburger to over cook and start stinking.

TRIACS

The Triacs are the little rectangular objects with 3 prongs on them. There are two Triacs. They are labeled no. 8 in the description of parts. The Triacs are used, in this particular case, as an electronic relay. They are switched on when the red button is pressed indicating that cooking should start. The triacs carry the heavy current through the hamburgers and back to the neutral wire. The two Triacs are connected in parallel in order to carry the current needed. The Triacs are forced to carry current equally by forcing one Triacs to conduct a half cycle and the other conduct the opposite half cycle.

Triac generally fail closed. When this happens, the unit will cook as soon as the cover is closed without pressing the red button. It will also continue to cook even though the amber light may go off and the beeper will beep signaling what should be the end of the cooking. However, it will continue and to cook the hamburger and they will eventually start to smell. Generally, only one Triac burns out. The one that has failed may be determined by the following test.

TRIAC TEST

INSTRUCTIONS:

1. Align Triac with small terminal toward you. Set ohmmeter to lowest setting (probably 200 OHMS). Terminals are labeled "1", "2", and "3" with small terminal as "1" and continuing counting clockwise. (Note: The numeral "1", "2", "3" are not marked on the Triac, but are used just to identify the terminals.)

2. Make each test shown in the 3 steps shown (fig. 4).

3. If Triac tests "bad" in any one of these 3 steps, Triac is bad, discard.

4. If the Triac tests "good" in all 3 steps, Triac is good, keep. Remember, triac must test "good" in all 3 steps to be good.

NOTES:

1. Older Triacs (slotted screw hole, one end), "Continuity" meter reading on step No. 1 on "good" will read about 28 OHMS.

2. Newer Triacs (round hole, both ends), "Continuity" meter reading on step No. 1 on "good" will read about 62 ± 5 OHMS.

3. "Continuity" meter readings on "bad" may be anything, but it is generally about 200 OHMS.

4. "No Continuity" meter reading will generally read "OL" on newer meters and "1" on older meters.

5. This method of testing Triacs is very effective in determining defective Triac when the symptom is "cooking all the time." However, it will not determine all the defects in a Triac. When trouble persists, replace both Triacs.

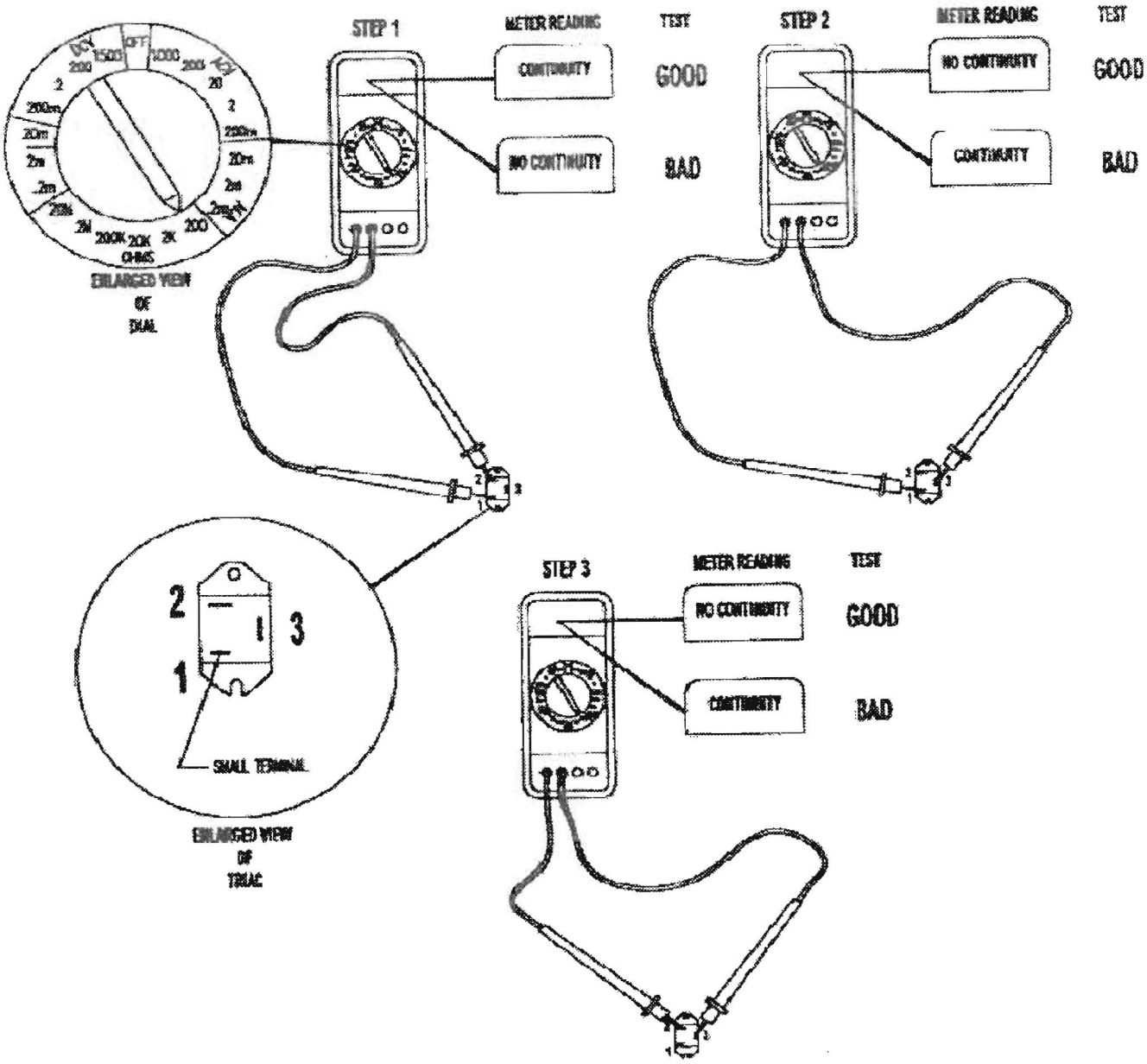


Figure 4

Step 1 - If the meter reading shows continuity, the test is good. If the meter reading shows no continuity, the Triac is bad. Discard the triac. Continue through the next 2 steps. Step 2 - If the meter reading shows no continuity, the test is good. If the meter reading shows continuity, the Triac is bad. Discard the Triac. Continue through the next step. Step 3 - If the meter reads no continuity, the test is good and the Triac is good. If the meter reads continuity, the Triac is bad. Discard the Triac.

TROUBLE SHOOTING OUTLINE

TROUBLE: I. COOKS ALL THE TIME (WHEN LID IS CLOSED). **FOR FURTHER INFORMATION SEE**

A. Test

1. Unit plugged in. Make sure power switch is in "OFF" position.
2. Measure voltage at power connector block. If it reads line voltage (115V approximately) then one or both Triac may be defective.

B. Solution

1. Check Triacs and replace defective Triac. — See "Triac Test", and Figure 4, Page 9
2. "Start" Push button stuck. Unstick or replace circuit board. — See Figure 8 & 9, Page 15

TROUBLE: II. HAMBURGER OVER COOKING AND STICKS TO TOP PLATE. **FOR FURTHER INFORMATION SEE**

A. Test - Cook with hamburger

B. Solution

1. Clean plate (shiny) with "Scotch Brite" maroon pad.
2. Make sure "Hamburger-Chicken" switch is in the "Hamburger" position.
3. Test Triacs for bad Triac and replace if defective — See "Triac Test", Figure 4, Page 9 See Figure 5, Page 13
4. Check drippings tub and make sure drain slot (wide space on back of tub when bottom plate is in place) is toward back with tub in place. Check tub adjustment steps and make sure they rest on the adjustment slide brackets only. If they are too far to one side and rest on the bottom console, replace tub.

TROUBLE: III. HAMBURGER COOKS ON ONE SIDE OF PLATE BUT NOT THE OTHER
PROBABLE CAUSE-TOP PLATE NOT PARALLEL WITH BOTTOM PLATE.

A. Test

1. Cook using hamburger
2. Observe which side is cooking. Generally the thicker hamburger will cook faster controlling the current thus stopping the cooking before the other side (thinner hamburger) is done. The undone hamburger may be partially cooked and will feel warm to touch but may look raw.
3. Check top plate installation by inserting fingers of the right hand on the right side and the fingers or the left hand on the left side underneath stainless steel part of the top plate at the bottom. Exert a little pressure with the fingers, attempting to lift the plate away from the surface of the cover. If the plate moves out from the top cover more than a quarter of an inch, the top plate is not secure in the clips. If this is the case, remove the top plate and install correctly.

4. Check adjustment slide brackets and make sure they are on the same setting. Also make sure each bracket is in the same hole and the slide bracket is not slanted.
5. Close top and check top for gap by pulling up on one side of the handle and then the other side. If a gap appears, then the handle needs to be adjusted

See, "How to Adjust Handle", Page 16

If a gap appeared, it could cause a hamburger to cook unevenly. The side with the gap will cook first leaving the opposite side slightly undone. Check hinges on back of lid to see if their loose. This can cause the same condition.

See "How to Adjust Hinges", Page 16

B. Solution

1. Make sure the top plate is installed correctly. Make sure that the bottom grooves of the top plate mate with the clips on the top cover. If the bottom right side or left side or both sides rest on top of the clips rather than the grooves the meat will not cook evenly on both sides.
2. Put slide adjustment brackets in some holes and setting.
3. Replace badly worn plates.
4. Adjust handle or hinges.

TROUBLE: VI. HAVE TO PUSH START BUTTON SEVERAL TIMES TO GET HAMBURGER DONE. — **FOR FURTHER INFORMATION SEE**

A. Test

1. Measure voltage at outlet (while not cooking). Should be line voltage (115V approximately).
2. Measure voltage at outlet, *while cooking*, voltage should not drop below 110V.

B. Solution

1. Run separate circuit using at least #10 type TW wire or #12 type THHN wire. Must be protected with a 30 amp breaker.
2. Check plug. Be sure wires are not clamped on insulation.
3. Do not operate Instant Burger on an extension cord. It must be operated on a 30 amp dedicated circuit.

TROUBLE: V. ***COOKS FOR 5 SECONDS AT "WELL DONE" POSITION THEN TURNS OFF.*** — **FOR FURTHER INFORMATION SEE**

A. ***Test***

1. *Run preliminary test. Amber light should stay on in "Well Done" position. Go to B. Solution 1*

B. ***Solution***

1. Replace printed circuit board.

See Figure 8, Page 15

TROUBLE: VI. POWER LIGHT (GREEN) IS ON BUT WON'T COOK WHEN RED BUTTON IS PUSHED.	FOR FURTHER INFORMATION SEE
A. Test	
1. Remove control box and check for loose wires.	See "Control Box, "Wiring", Figure 11, Page 17
2. *Turn "Rare-Well Done" knob to "Well-Done" position.*	
3. Depress "start" switch (red button). Amber light should come on.	
4. Measure voltage at point where cord to connector block connects to the terminal block. Should measure line voltage. If not check triacs. If triacs test bad, replace. If triacs test good, replace board.	See "Triac Test", Figure 4, Page 9 See "How to Replace Circuit Board", Page 15
5. If line voltage is read across the two terminals on terminal block of the cord to connector block then check continuity of the cord to the connector block. If wire in cord is broken, replace cord.	See "How to Replace Circuit Board", Page 15
6. If good replace power connector block.	See "How to Replace Power Connector Block", Page 14

TROUBLE: VII. *COOKS ALL THE TIME UNLESS "RARE WELL-DONE" KNOB IS IN "RARE" POSITION.*	FOR FURTHER INFORMATION SEE
B. Solution	
1. *Replace printed circuit board.*	See Figure 8, Page 15

TROUBLE: VIII. MEAT GREEN ON ONE SIDE AND RAW ON OTHER SIDE?	FOR FURTHER INFORMATION SEE
A. Test - Check both Triacs before starting test and replace if defective.	See "Triac Test", Figure 4, Page 8
1. Unit plugged in. Power switch is in "OFF" position.	Go to B. Solution 1
2. Check for loose connections at small (blue) terminal on both Triacs.	
3. Call factory.	
B. Solution	
1. Recrimp blue terminals on wires to small terminal on Triacs.	See "Control Box Wiring", Figure 11, Page 17

HOW TO REPLACE TRIACS

(See Fig. 5)

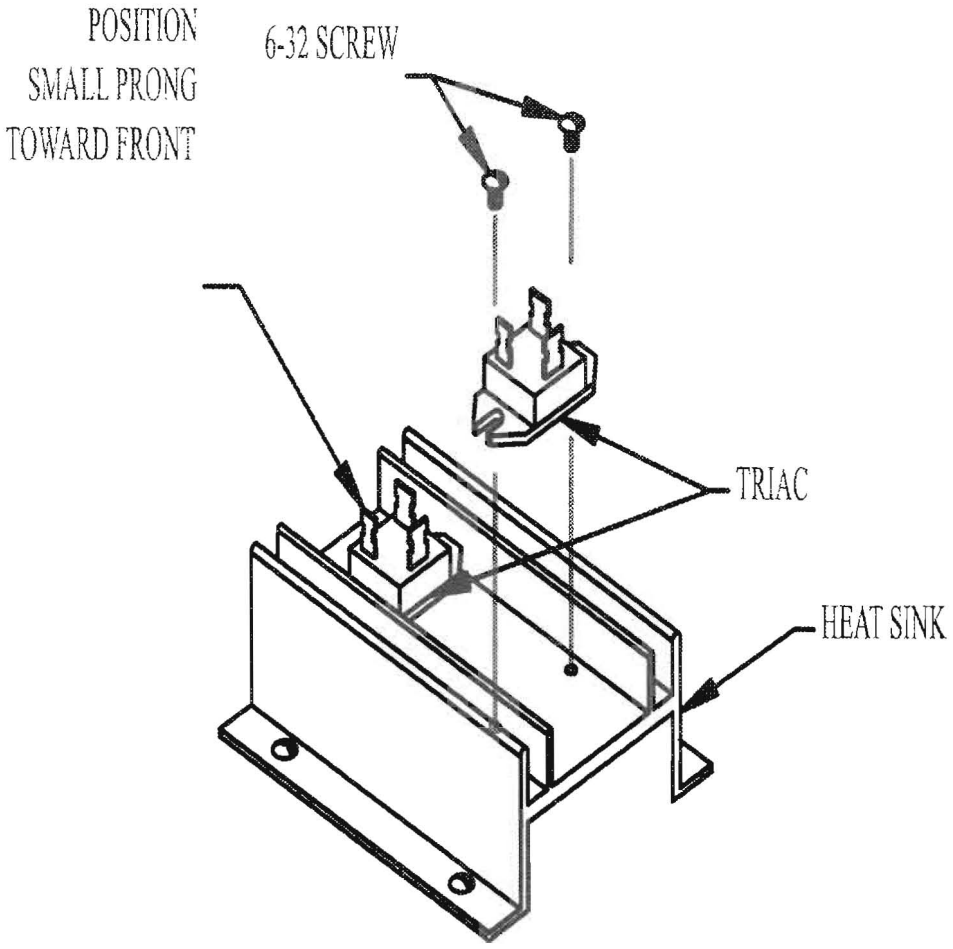


Figure 5

1. Unplug unit.

2. Turn unit upside down and remove control box by removing 4 each 6-32 screws.

3. Turn control box right side up.

4. Remove 2 each 6-32 screws from each Triac.

5. Coat bottom of new Triac with "transistor" silicone grease heat sink compound. This assures good heat transfer from the Triac to the heat sink.

6. With new Triac in hand remove wires individually from terminals and place on identical terminal of new triac (See fig. 5). See "Control box wiring" Figure 11, page 17 to check correct wiring.

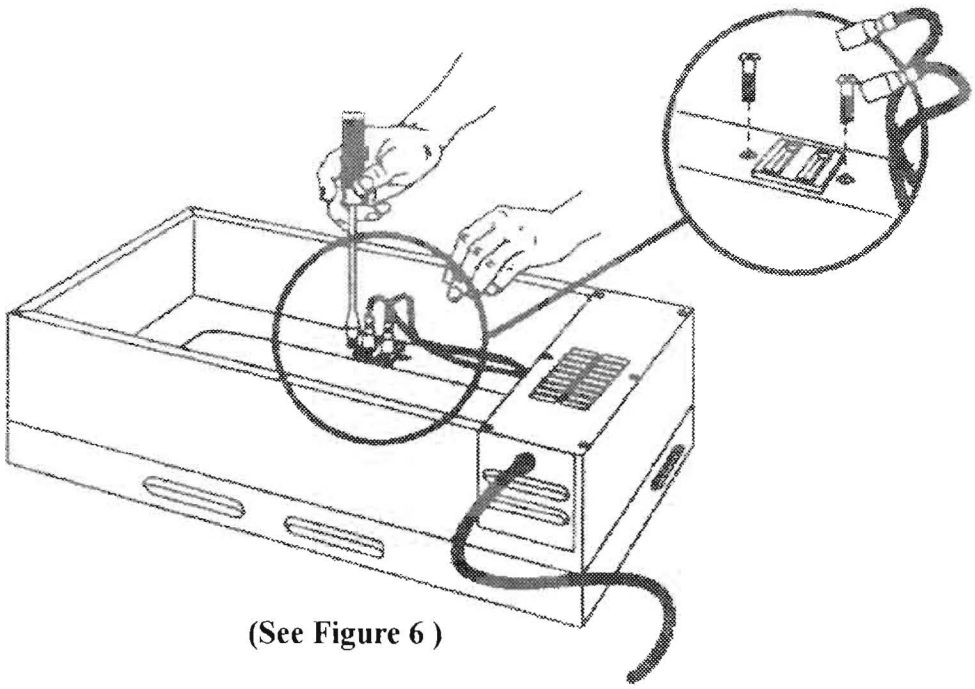
7. Attach new Triacs to aluminum heat sink with 6-32 screws.

8. Replace control box using 4 each 6-32 screws.

9. Turn machine right side up and plug into power source.

10. Perform "Load Test" on page 6. If machine passes "Load Test" then it is ready for operation.

HOW TO REPLACE POWER CONNECTOR BLOCK



(See Figure 6)

1. Unplug unit.
2. Turn machine upside down and remove bottom cover by removing 6 each 6-32 screws. Remove connector block baffle by removing 2 each 10-24 nuts.
3. Remove two terminals from connector block.
4. Remove 2 each #6 x 5/8 self tapping screws from connector block.
5. Turn machine rightside up and open lid.
6. Replace old connector block with new one.
7. Turn machine upside down and attach 2 each #6 x 5/8 self tapping screws.
8. Connect two terminals to connector block.
9. Replace connector block baffle with 2 each 10-24 nuts.
10. Replace bottom cover with 6 each 6-32 screws.
11. Turn machine rightside up and plug into power source.
12. Run "Load Test". (See Page 6.)

HOW TO REPLACE CIRCUIT BOARD

(See Figure 7, 8 & 9)

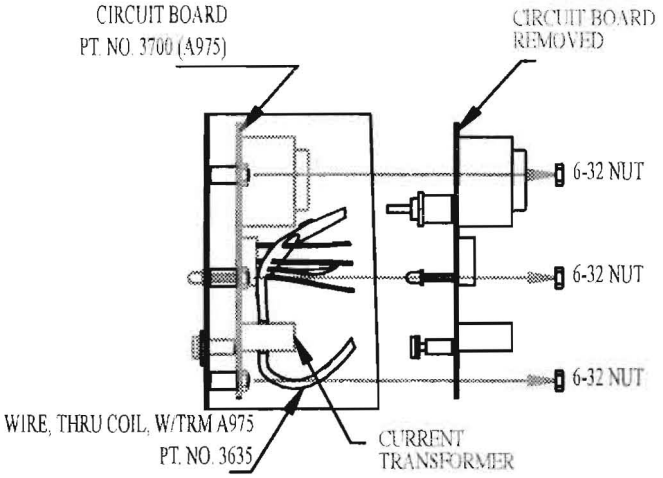
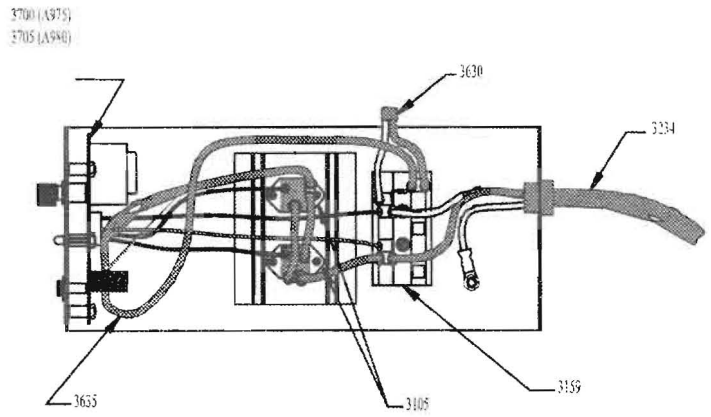
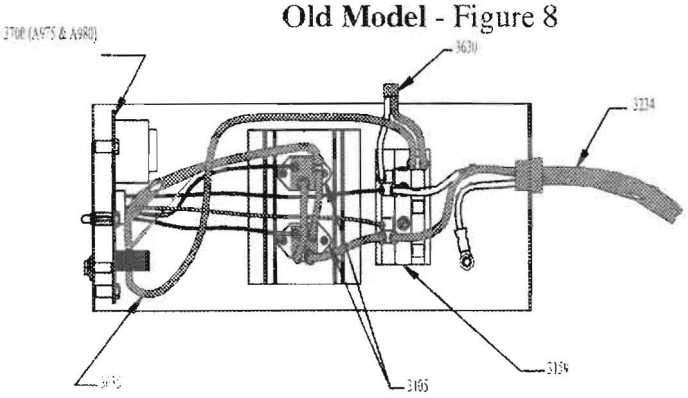


Figure 7



Old Model - Figure 8



New Model - Figure 9

1. Unplug unit.
2. Turn machine upside down.
3. Remove 4 each 6-32 screws from contol box.
4. Remove control box.
5. Remove wire through coil by removing yellow terminal from terminal block and pulling end through hole in current transformer. (Note: this terminal is smaller and can be pulled through current coil hole.)
6. Disconnect red receptacle from plug at the bottom of the printed circuit board (J1).
7. *Remove "Rare-Well Done" control knob, part no. 3159, using .050 hex (allen) wrench to loosen the set screw holding it to the shaft.*
8. Remove 3 each 6-32 nuts holding circuit board.
9. Remove circuit board by pulling out.
10. Replace with board with 3 nuts to hold board in place.
11. Reconnect red receptacle to plug at bottom of new board (J1).
12. Put wire through coil and connect yellow terminal back to correct terminal on terminal block. (See Figure 8.)
13. *Replace "Rare-Well Done" control knob Align in "Well Done" position and* tighten *set screw with .050 hex (allen) wrench.*
14. Replace control box using 4 each 6-32 screws.
15. Turn Instant Burger upright.
16. Plug into power source.
17. Run "Load Test". (See Page 6.)

HOW TO REPLACE TERMINAL BLOCK

(See Figure 10)

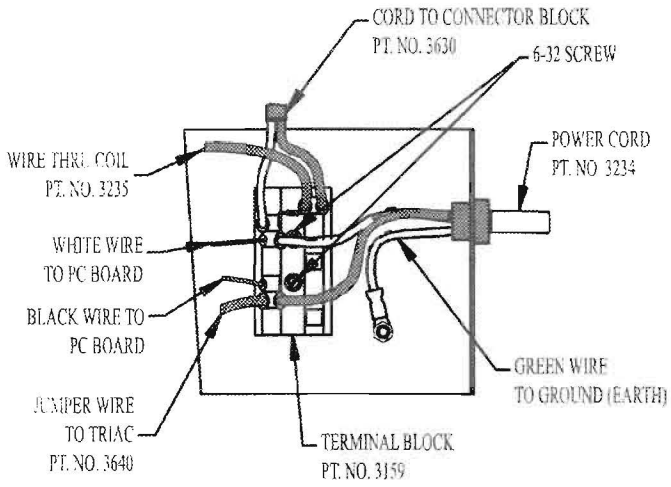


Figure 10

1. Unplug unit.

2. Turn machine upside down and remove control box by removing 4 each 6-32 screws. Remove wires from old terminal block and place on new terminal block one wire at a time until all wires are on new block. (see Figure 10).

4. Remove 2 each 6-32 screws holding old terminal block to bottom of cabinet and remove old terminal block.

5. Attach new terminal block to cabinet using 2 each 6-32 screws.

6. Check circuit board and terminal block wiring according to Figure 10 & 11.

7. Replace control box using 4 each 6-32 screws.

8. Turn machine right side up and plug into power source.

9. Perform "load test" on page 6. If machine passes "Load Test" then it is ready for operation.

HOW TO ADJUST TOP HANDLE

Open lid and loosen 1/4- 20 bolt with 7/16" socket wrench. Push handle and bolts to the top of the slotted hole. Lightly tighten bolt on both sides. Close cover. Handle catches should be riding on top of bottom console just above the slots. Take a hammer and a piece of wood and tap the top of the handle on one side until it just barely latches in the slot. Repeat process for the other side. Open lid and tighten bolts very tight. Close lid to see if it will latch. If it won't, repeat the process.

HOW TO ADJUST TOP HINGES

If the top hinges are too loose it will allow the top to come up a little bit, when cooking, thereby changing the spacing on the hamburger. This will cause uneven cooking. To adjust the top hinge, loosen both lock nuts on hinge bolt. Use 7/16" "Spin Tite" and 7/16" socket wrench. Tighten 1/4 - 20 bolt until tight with "Spin Tite" wrench. Loosen one quarter turn. Then, tighten lock nut very tight while holding 1/4- 20 bolt in place with wrench. Do the same with the other hinge.

CONTROL BOX WIRING

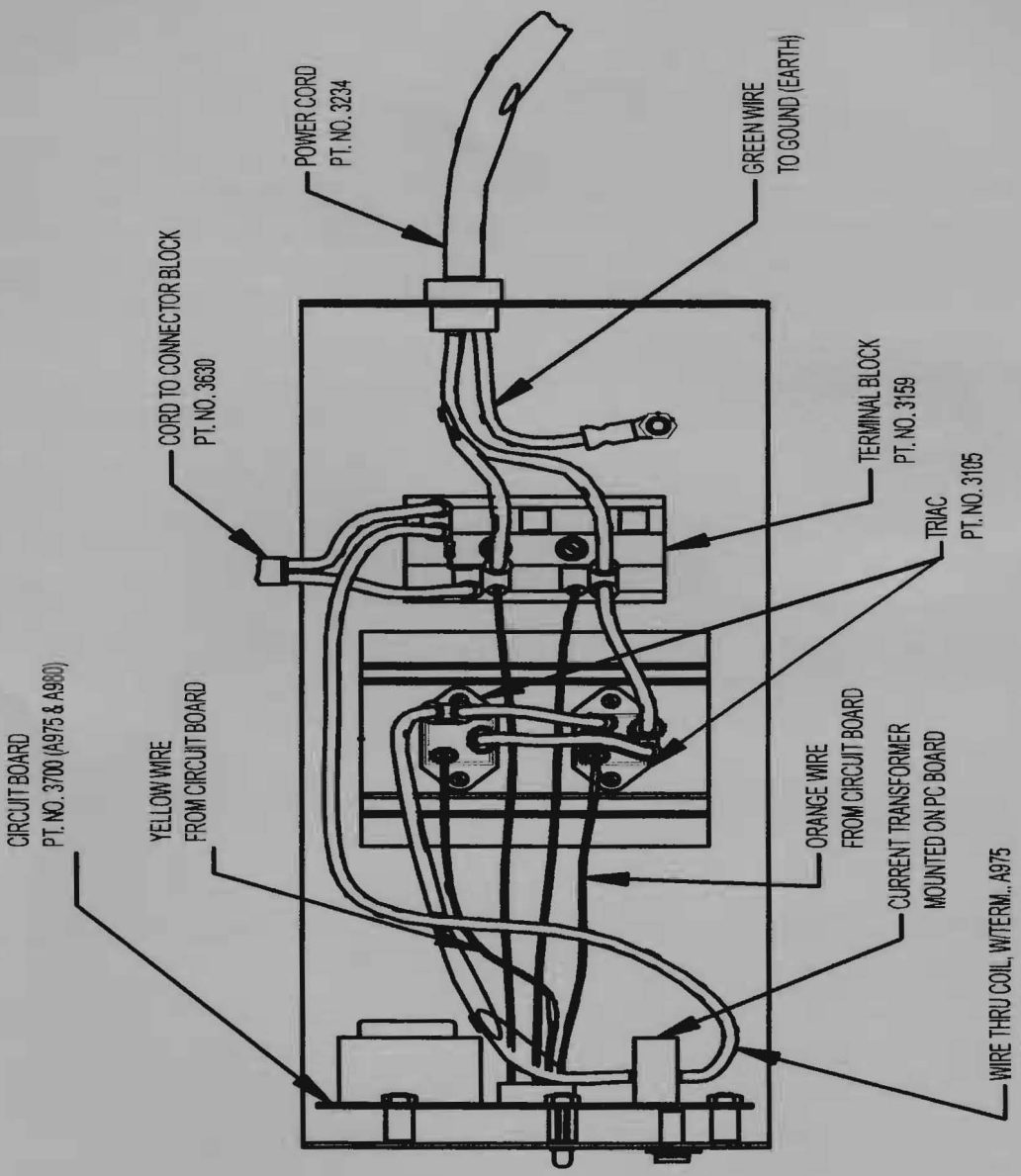


Figure 11